



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 23 2017

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Val Kizik, Operations Manager
Hydrite Chemical Co.
2400 S. Erie Canal Rd.
Terre Haute, Indiana 47802

Re: Finding of Violation
Hydrite Chemical Co.
Terre Haute, Indiana

Dear Mr. Kizik:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to Hydrite Chemical Co. (Hydrite or you). We find that you are violating Title V of the Clean Air Act (CAA), 42 U.S.C. § 7661 *et seq.*, and the applicable implementing regulations at your Terre Haute, Indiana facility.

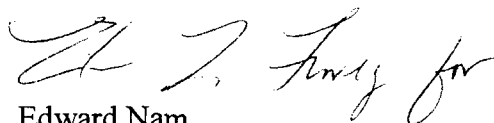
Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Kenneth Ruffatto. You may call him at (312) 886-7886 to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ed Nam", followed by a flourish.

Edward Nam
Director
Air and Radiation Division

Enclosure

cc: Phil Perry, Chief, Air Compliance Branch

1. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), provides that it is unlawful for any person to, among other things, operate a major source subject to Title V except in compliance with a Title V permit after the effective date of any permit program approved or promulgated under Title V of the CAA.
2. Section 502(d) of the CAA, 42 U.S.C. § 7661a(d), provides that each state must submit to the EPA a permit program meeting the requirements of Title V.
3. Pursuant to Section 502(b) of the CAA, 42 U.S.C. § 7661a(b), EPA promulgated regulations establishing the minimum elements of a Title V permit program to be administered by any air pollution control agency. *See* 57 Fed. Reg. 32,295 (July 21, 1992). Those regulations are codified at 40 C.F.R. Part 70.
4. On December 4, 2001, EPA granted full approval to Indiana's Title V operating permit program, set forth at 326 Indiana Administrative Code (IAC) 2-7. *See* 66 Fed. Reg. 62,969.
5. 40 C.F.R. § 70.7(b) provides that no Title V source may operate after the time that it is required to submit a timely and complete application except in compliance with a Title V permit issued under an approved permit program. *See* 326 IAC 2-7-3.
6. 40 C.F.R. § 70.2 defines "major source," in part, as any stationary source that directly emits or has the potential to emit greater than 100 tons per year (TPY) of any regulated air pollutant. *See* 326 IAC 2-7-1(21)(B).

7. 40 C.F.R. § 70.2 defines “regulated air pollutant,” in part, as any pollutant for which a national ambient air quality standard (NAAQS) has been promulgated. *See* 326 IAC 2-7-1(30)(B).
8. EPA most recently promulgated primary NAAQS for sulfur dioxide (SO₂) on June 22, 2010 (75 Fed. Reg. 35520).
9. 40 C.F.R. § 70.2 defines “potential to emit” as the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by EPA. *See also* 326 IAC 2-7-1(28).
10. Section 503 of the CAA, 42 U.S.C. § 7661b, 40 C.F.R. § 70.5(a) and 326 IAC 2-7-4(a) set forth the requirement to submit a timely, accurate, and complete permit application for a permit, including information required to be submitted with the application.
11. 326 IAC 2-7-2(a) and (b) provide that any major source is required to have a Title V permit with the exception of major sources that have taken synthetic minor limits through the issuance of a federally enforceable state operating permit (FESOP) under 326 IAC 2-8 or sources meeting the requirements of 326 IAC 2-9.
12. 326 IAC 2-8-2(a) provides that until the commissioner has issued a FESOP for the source, the source is subject to all applicable requirements of 326 IAC 2-7. *See* 60 Fed. Reg. 43,008.
13. The Indiana Department of Environmental Management (IDEM) issued Hydrite a New Source Construction and Minor Source Operating Permit (MSOP), No. M167-29848-00069, on July 12, 2011. The permit was revised and amended on April 25, 2013 (167-33038-00069); June 30, 2015 (167-34496-00069) and December 7, 2015 (167-36376-00069).
14. IDEM received an application from the facility for the renewal of MSOP No. 167-29848-00069 on February 15, 2016.

Findings and Violations

15. Hydrite owns and operates a chemical manufacturing facility at 2400 S. Erie Canal Road, Terre Haute, Indiana (the Facility) in Vigo County (Harrison Township).
16. Vigo County (Harrison Township) is currently designated as non-attainment with the 2010 primary sulfur dioxide (SO₂) National Ambient Air Quality Standards, which took effect on October 4, 2013. *See* 78 Fed. Reg. 47,191.

17. Hydrite operates a bisulfite production line that produces sodium bisulfite (SBS), magnesium bisulfite (MBS), and ammonium bisulfite (ABS) and a thiosulfate production line that produces ammonium thiosulfate (ATS).
18. The bisulfite production process was constructed in 1993 and includes a sulfur burner to produce SO₂, three reactors in series to produce the three bisulfite products and a scrubber with a mist eliminator to remove excess SO₂.
19. On August 5, 2016, EPA issued an information request to Hydrite under Section 114(a) of the CAA, 42 U.S.C. § 7414(a), requesting, among other things, stack testing for SO₂ on the bisulfite production line in accordance with EPA Methods 1, 2, 3, 4, and 6.
20. On December 6, 2016, Hydrite conducted a stack test for SO₂ on the bisulfite production line under two representative scenarios: the bisulfite production line only producing SBS and the bisulfite production line only producing SBS and MBS.
21. The emission rate of SO₂ was measured both before and after the scrubber unit on the bisulfite production line under both scenarios.
22. Hydrite is not required to operate its scrubber through federally enforceable limits and requirements.
23. Table 1 below shows the emission rate of sulfur dioxide under the two scenarios pre-scrubber:

Table 1: Sulfur Dioxide Emission Rates Pre-Scrubber

	SO ₂ Emission Rate	
	lb/hr	TPY
SBS Only	23.6	103
SBS+MBS	20.8	91

24. Based on the results of the stack test, the potential to emit of the bisulfite production line alone is greater than 100 tons per year (TPY) of SO₂.
25. Table 2 below summarizes the potential to emit of the entire source, including emissions from the continuous bisulfite production line as measured under the two stack test scenarios pre-scrubber, the batch bisulfite production line as recorded in MSOP No. M167-29648-00069, and the ammonium thiosulfate production line as recorded in the First Minor Permit Revision No. 167-33038-00069.

Table 2: Sulfur Dioxide Emission Rates of the Entire Source

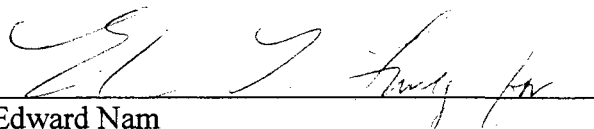
	SO₂ Emission Rate of the Entire Source (TPY)	
	Scenario 1: with Continuous Production of SBS Only	Scenario 2: with Continuous Production of SBS+MBS
Bisulfite Production (Continuous)	103	91
Bisulfite Production (Batch)	7.77	7.77
Ammonium Thiosulfate Production	10.37	10.37
Total SO₂ PTE of Entire Source	121	109

26. Based on the recorded potential to emit of the batch bisulfite and ammonium thiosulfate production lines and the results of the stack test, the potential to emit of the entire source is greater than 100 tons per year (TPY) of SO₂ in both stack test scenarios.
27. Hydrite is therefore considered a major source in accordance with the major source definition in 40 C.F.R. § 70.2, as measured in the potential to emit of the bisulfite production line alone and the potential to emit of the entire source.
28. Hydrite failed to submit a timely Title V permit application to IDEM in violation of Section 503 of the CAA, 42 U.S.C. § 7661b and 40 C.F.R. § 70.5(a). *See* 326 IAC 2-7-4(a).
29. From October 17, 1995 to the present, Hydrite has operated and continues to operate a major source of SO₂ without a Title V permit issued by IDEM in violation Section 502(a) of the CAA, 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b). *See* 326 IAC 2-7-3.

Environmental Impact of Violations

30. Current scientific evidence links short-term exposure to SO₂ ranging from 5 minutes to 24 hours with an array of adverse respiratory effects including bronchoconstriction and increased asthma symptoms.
31. Hydrite experienced a leak of SO₂ on August 15, 2015 contributing to the hospitalization of 15 people.

3/23/17
Date


Edward Nam
Director
Air and Radiation Division

CERTIFICATE OF MAILING

I certify that I sent a Notice and Finding of Violation, No. EPA-5-17-IN-04, by Certified


Mail, Return Receipt Requested, to:

Val Kizik, Operations Manager
Hydrite Chemical Co.
2400 S. Erie Canal Road
Terre Haute, Indiana 47802

I also certify that I sent copies of the Notice and Finding of Violation to:

Phil Perry
Chief, Air Compliance Branch
PPERRY@idem.IN.gov

On the 24th day of March 2017.


for Kathy Jones
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 2011 1150 0000 2641 1763